A demand for biotech grads

BIOTECHNOLOGY is used in areas such as pharmaceutical discovery and production, exploring alternative energy sources and developing improved crop varieties for sustainable food production.

Bio means living, while technology provides better ways of doing things. So in a nutshell, biotechnology means using living systems to enhance the life of mankind.

The biotechnology industry in Malaysia is suffering a serious skills shortage.

According to the Malaysian Biotechnology Corporation (BiotechCorp) Human Capital Development Report 2009/2010, it needs an estimated workforce of 100,000 knowledge workers to support the industry.

This translates into 280,000 additional jobs supporting the industry by 2020.

According to UCSI University’s Faculty of Applied Sciences dean, Associate Professor Dr Hon Wei Min, these are among the reasons why those in the biotechnology industry need to continue their studies.

“With the biotechnology industry advancing rapidly, it is very important for those working in the field to be abreast with new knowledge all the time. One way to do so is by pursuing a postgraduate degree to boost their career.”

Students in the Master’s programme have also used their postgraduate qualification as a stepping stone to higher degree research.

According to Dr Hon, Biotechnology graduates in Malaysia usually pursue careers related to the sales and marketing side of the field.

“This includes industries related to the retailing of drugs and pharmaceutical instruments, while others choose to enter the academic sector, devoting their time to research and development.”

After a few years in the business side of the Biotech industry, these individuals begin to realise a need to attain better qualifications to advance their careers.

Thus, Dr Hon says, “Most choose to do a Master’s in Business Administration, although it is equally essential to possess strong scientific knowledge and technical skills in the Biotech industry.”

UCSI University believes that the human capital asset in Malaysia’s Biotech industry can be strengthened by incorporating scientific knowledge with business acumen.

Consequently, UCSI University has introduced a new, one-of-a-kind postgraduate degree, the MSc Biotechnology with Business Management.

Coursework-based, the programme guarantees completion within one and a half years for full-time students, and two years for part-timers.

Those pursuing this postgraduate programme will be doing their research and other laboratory work in UCSI University’s brand new laboratories.

The university invested about RM1 million to equip the laboratories with state-of-the-art equipment such as the High Performance Liquid Chromatography (HPLC) and Gas Chromatography (GC), to name a few.

This coursework-based Master’s programme aims to produce postgraduates with expertise in both the practical and theoretical aspects of the specialised areas in Biotechnology, with the relevant skills for independent research.

Students learn to conceptualise current economics, ethical, legal and social issues related to biotechnology to generate, develop and communicate creative solutions scientifically.

Furthermore, these programmes also develop students’ managerial and leadership skills, enabling them to apply their scientific knowledge successfully and train them to be biopreneurs or technopreneurs of the next generation with the ability to translate research outcomes into future business opportunities.

This multi-disciplinary programme would serve the industry’s needs better than the traditional mono-disciplinary model as it allows students a broader range of choices in modules to meet their individual and particular career goals.

To further meet the growing demands of the industry, UCSI University’s Faculty of Applied Sciences is also offering the MSc Biotechnology which is designed to provide graduates with in-depth conceptual understanding of the concept and techniques of the specialised areas of Biotechnology to meet the growing needs of the Biotechnology industry.

This programme also trains students to develop laboratory management and technical skills.

Yet another programme offered by the Faculty is the MSc Applied Sciences pro-
programme for individuals more interested in research and research-based work.

In 2009, BiotechCorp, an agency under the purview of the Ministry of Science, Technology (MOSTI) announced that they expect to see 50 more biotechnology companies with BioNexus status by the end of 2011. Equivalent to a Multimedia Super Corridor status, such companies are entitled to tax breaks and research government grants.

UCSI University's biotechnology postgraduate programmes are aimed at augmenting the nation's capital asset in the biotechnology industry by driving the country forward in its quest to be a developed country equipped with such skilled and knowledgeable biotech workforce.

Those interested to further their studies but who are financially constrained may also apply for a government loan under MyBrain15 to fund their postgraduate degree.

Under MyBrain15, the Malaysian Government aims to develop the economy by increasing Malaysian PhD holders to 60,000, to extend the quality of the nation's human capital while stimulating the country's economy into a high yield nation by 2020.

- For details on UCSI University's biotechnology postgraduate programmes and activities as well as the scholarships offered by UCSI University, do pay them a visit during their Open Days from Jan 14 to 15 (9am-6pm), contact their counsellors at 03-9101 8880 or e-mail asknn@ucsi.edu.my

Alternatively, visit UCSI University at www.ucsi.edu.my